

## **REMARKS**

Applicants thank the Examiner for the thorough examination given the present application.

### **Status of the Claims**

Claims 2, 6-8, 12-14, and 22-25 are pending in the present application. Support for the amendments to claims 2, 7, 8, and 22 can be found in the present specification, *inter alia*, at page 11, lines 11-14 and page 13, lines 6-8. Thus, no new matter has been added. Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

### **Issues under 35 U.S.C. § 103(a)**

Claims 2, 6-8, 12-14, and 22-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Schauder et al. '766 (US 5,728,766) in view of Singha et al. (Journal of Applied Polymer Science) (pages 2-7 of the outstanding Office Action).

Applicants respectfully traverse. Reconsideration and withdrawal of these rejections are respectfully requested.

### **Legal Standard for Determining Prima Facie Obviousness**

MPEP 2141 sets forth the guidelines in determining obviousness. First, the Examiner has to take into account the factual inquiries set forth in *Graham v. John Deere*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), which has provided the controlling framework for an obviousness analysis. The four *Graham* factors are:

- (a) determining the scope and content of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating any evidence of secondary considerations.

*Graham v. John Deere*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

Second, the Examiner has to provide some rationale for determining obviousness. MPEP 2143 sets forth some rationales that were established in the recent decision of *KSR International Co. v Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007).

As the MPEP directs, all claim limitations must be considered in view of the cited prior art in order to establish a *prima facie* case of obviousness. See MPEP 2143.03.

#### Distinctions over the Cited References

As amended, independent claims 2, 7, 8, and 22 recite that "said hydrogenated natural polyisoprenoid is an ingredient in modified lattices obtained by hydrogenating natural polyisoprenoid lattices in the state of latex." The cited references fail to disclose this element.

Schauder et al. '766 teach a rubber-like article comprising an ethylene-propylene copolymer that has been molded and vulcanized. Schauder et al. '766 teach that the copolymer has a molecular weight distribution between 1 and 8. However, Schauder et al. '766 fail to teach a hydrogenated natural polyisoprenoid. Furthermore, Schauder et al. '766 do not teach that "hydrogenated natural polyisoprenoid is an ingredient in modified lattices obtained by hydrogenating natural polyisoprenoid lattices in the state of latex."

Singha et al. teach hydrogenating a natural rubber/*Hevea brasiliensis* to a degree of hydrogenation of 100% in the presence of a rhodium complex in a solvent. However, Singha et al. do not teach a hydrogenated natural polyisoprenoid. Should the Examiner disagree, Applicants respectfully request that the Examiner provide a specific citation in Singha et al. that proves otherwise. Furthermore, Singha et al. do not teach that "hydrogenated natural polyisoprenoid is an ingredient in modified lattices obtained by hydrogenating natural polyisoprenoid lattices in the state of latex."

Furthermore, Schauder et al. '766 and Singha et al. are not properly or easily combinable. The Examiner asserts that, when the description of the vulcanization of the synthetic rubber of Schauder et al. '766 is combined with the description of the research of the hydrogenation of natural rubber, one of ordinary skill in the art can easily complete the rubber-like elastic article of the present invention. Applicants respectfully traverse this assertion.

First, one of ordinary skill in the art would have no reason, rationale, or motivation to combine these teachings. Schauder et al. '766 require the use of synthetic rubber (EPM or EPDM). Schauder et al. '766 provide no reason, rationale, or motivation to add or substitute natural rubber, and no advantage can be found for using natural rubber in the method of Schauder et al. '766. In fact, one of ordinary skill in the art has no way of knowing whether the method of Schauder et al. '766 is applicable when natural rubber is used.

Singha et al. may describe the hydrogenation of natural rubber. However, since the natural rubber in Singha et al. shows a glass transition temperature which is lower than that of the present invention (-56 to -58°C versus -43°C), the rubber of Singha et al. has different physical properties from the rubber of the present invention. Therefore, simply combining the references would not achieve the present invention as recited in the pending claims.

Moreover, the Examiner admits that the cited references do not teach the weight average molecular weight of the polymer. However, the Examiner asserts that, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.

However, an optimal value was not known at the time when the present invention was conceived. Moreover, Sasagawa et al. '475 (US 2003/0125475), which was cited in the previous Office Action, disclosed that "a hydrogenated polymer having a molecular weight exceeding 600,000 has poor processability" (paragraph [0020]). As such, previous disclosures actually taught away from the present invention. Reaching the present invention by conducting experiments opposite to the teaching of an appropriate value disclosed in Sasagawa et al. '475 would have to go through undue experimentation. Therefore, the limitation "the hydrogenated natural polyisoprenoid has a weight-average molecular weight of  $83$  (or  $60$ )  $\times 10^4$  or more" of the present application is not obvious over the cited references.

To establish a *prima facie* case of obviousness of a claimed invention, all of the claim limitations must be disclosed by the cited references. As discussed above, the cited references fail to disclose all of the claim limitations of independent claims 2, 7, 8, and 22, and those claims dependent thereon. Accordingly, the combinations of references do not render the present invention obvious.

Furthermore, the cited references or the knowledge in the art provide no reason or rationale that would allow one of ordinary skill in the art to arrive at the present invention as claimed. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the outstanding rejections is respectfully requested. Any contentions of the USPTO to the contrary must be reconsidered at present.

### CONCLUSION

A full and complete response has been made to all issues as cited in the Office Action. Applicants respectfully request that a timely Notice of Allowance issue for the present case clearly indicating that each of claims 2, 6-8, 12-14, and 22-25 are allowed and patentable under the provisions of title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad M. Rink, Reg. No. 58,258, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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